

## HIGH VISCOSITY TECHNICAL DATA SHEET

### Description

An instant adhesive designed to give good performance onto a range of substrates, including difficult to bond plastic and rubber parts that do not fit that well together. It has excellent gap filling characteristics and will not wick into unwanted areas

Liquid Properties	
Ester base	Ethyl Hybrid
Appearance	Clear, colourless liquid
Flash Point	>85 °C
Density	1.08 g/cm <sup>3</sup>
Shelf-life at 22 °C	12 months, unopened
Viscosity (Cone & Plate) CP50@100/s 25 °C	1200 – 1650 cP

Polymeric Properties	
Appearance	Clear, colourless polymer
Softening Point	130 °C
Full Cure Time	24 hours
Gap fill (mm)	0.20

Cure Speed vs. Substrate (Time to develop strength of 0.1 N/mm <sup>2</sup> , ISO 4587)	
Nitrile Rubber	<6 Seconds
EPDM	<6 Seconds
Neoprene	<7 Seconds
Mild Steel	<20 Seconds
Polycarbonate	<10 Seconds

Lap Shear Strength (Prepared & Tested in accordance with ISO 4587)	
Steel (Grit Blasted)	>15 N/mm
Polycarbonate	>6 N/mm

Tensile Strength (Tested in accordance with ASTM D 412 [B])	
Nitrile Rubber	>5 N/mm <sup>2</sup>
EPDM	>2.5 N/mm <sup>2</sup>
Neoprene	>10 N/mm <sup>2</sup>

Temperature resistance	
Temperature(°C)	% of Initial Strength
22	100
75	76
100	64
125	15

## Surface Preparation

For optimum strength structural bonds, paint, oxide films, oils, dust, mold release agents, and all other surface contaminants must be completely removed. However, the amount of surface preparation depends on the required bond strength and the environmental aging resistance desired by the user. Typical quick surface preparation would include wiping with a clean solvent (such as isopropyl alcohol\*), abrading the surface with a clean fine abrasive, and then wiping again with a clean solvent to remove loose particles.

## Directions for Use

1. Ensure that parts are clean, dry, and free from oil and grease.
2. An instant adhesive activator, such as SILOXA ACT, may be required if there are bonding gaps or porous substrate surfaces, if substrates are low surface energy plastics (e.g., polyethylene, polypropylene) or if substrates have acidic surfaces (e.g., paper, leather).
3. Bond speed is typically very fast so ensure that parts are properly aligned before dispensing.
4. Product is normally hand applied from the bottle. Apply sparingly to one surface and press parts firmly together until handling strength is achieved. As a general rule, as little cyanoacrylate as possible should be used. Over application will result in slower cure speed and lower bond strength.

## Cured Bond Characteristics

1. Full bond strength will typically be achieved within a 24 hour cure time.
2. Low humidity or low temperature conditions will slow down the cure rate.
3. After curing, Plastic and Rubber Instant Adhesive bonds are suitable for use up to about 82°C.
4. Cyanoacrylate bond resistance to most oils and solvents is excellent. Long term humidity, moisture, or water immersion may affect the strength of a cured cyanoacrylate bond depending on the substrates and the bond gap. Testing is recommended to evaluate the effect

## Storage

For short term storage (<30 days), keep adhesive in a cool (16°C to 27°C), dry place out of direct sunlight. Keep containers tightly covered and free of moisture. Refrigeration (4°C) gives optimum long term storage stability

## Shelf Life

Siloxa Super Glue adhesives can be expected to have a shelf life of one year from the date of shipment, when stored under refrigerated conditions